



# Utilitiesman Basic Volume 1

Only one answer sheet is included in the NRTC. Reproduce the required number of sheets you need or get answer sheets from your ESO or designated officer.

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Although the words “he,” “him,” and “his” are used sparingly in this manual to enhance communication, they are not intended to be gender driven nor to affront or discriminate against anyone reading this text.

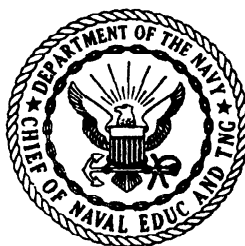
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# UTILITIESMAN BASIC, VOLUME 1

NAVEDTRA 11019



*1998 Edition Prepared by  
UTC(SCW) Dennis E. Richmond*





# PREFACE

*Utilitiesman Basic*, Volume 1, NAVEDTRA 11019, is an eight chapter training manual (TRAMAN). This TRAMAN, along with its companion nonresident training course (NRTC), which is included in the volume, forms a self-study package that will greatly aid students in full filling the requirements for advancement.

Designed for individual study, this TRAMAN provides subject matter that relates directly to the occupational standards of the Utilitiesman rate. There are embedded questions throughout the text, which allows the student to check their understanding of a specific topic. The answers are provided in appendix II.

The NRTC provides the usual way a student can satisfy the requirements for completing the TRAMAN. The assignments in the NRTC include supporting questions designed to guide the student through the subject matter of the TRAMAN.

The Naval Education and Training Professional Development and Technology Center (NETPDTC), Pensacola, Florida, has developed this TRAMAN and NRTC for the Chief of Naval Education and Training. Technical assistance was provided by the Naval Facilities Engineering Command, Alexandria, Virginia; the Naval Construction Training Center, the Naval Construction Battalion Center, and the Civil Engineering Support Office, Port Hueneme, California; the Naval Construction Training Center, the Naval Construction Battalion Center, the 20th Naval Construction Regiment, Gulfport, Mississippi, and the Naval Construction Training Center Detachment, Sheppard, AFB, Wichita falls, TX.

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# **THE UNITED STATES NAVY**

## **GUARDIAN OF OUR COUNTRY**

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends; the United States Navy exists to make it so.

## **WE SERVE WITH HONOR**

Tradition, valor, and victory are the Navy's heritage from the past. To these may be added dedication, discipline, and vigilance as the watchwords of the present and the future.

At home or on distant stations as we serve with pride, confident in the respect of our country, our shipmates, and our families.

Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

## **THE FUTURE OF THE NAVY**

The Navy will always employ new weapons, new techniques, and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war.

Mobility, surprise, dispersal, and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past.

Never have our opportunities and our responsibilities been greater.

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# **SUMMARY OF UTILITIESMAN BASIC**

## **VOLUME 1**

*Utilitiesman Basic*, Volume 1, NAVEDTRA 11019, consists of chapters on Plans, Specifications, and Color Coding; Advanced Base Functional Components (ABFC); Plumbing; Plumbing Valves and Accessories; Plumbing Fixtures and Plumbing Repairs; Prime Movers, Pumps, and Compressors; Water Treatment; and Equipment Maintenance.

## **VOLUME 2**

*Utilitiesman Basic*, Volume 2, NAVEDTRA 11020, consists of chapters on Boilers; Boiler Maintenance; Steam Distribution Systems; Heating Systems; Galley Equipment; Laundry Equipment; Air Conditioning; and Refrigeration.